

**WHAT IS CLAIMED IS:**

**1. An aircraft trash management system, comprising:**

- a) a trash bag having a porous bottom;**
- b) a compactor having a compacting chamber having at least one drain port, a chamber in communication with cabin pressure and a bellows driven crusher plate between the two chambers;**
- c) a bilge drain valve providing fluid communication with atmospheric pressure; and**

**d) valve means for selectively coupling the compacting chamber port to the bilge drain valve such that the compacting chamber is in fluid communication with atmospheric pressure.**

**2. The system according to claim 1, wherein:**

**said porous bottom of said trash bag is impregnated with one of an antibacterial agent and a leaching enzyme.**

**3. The system according to claim 1, wherein:**

**said porous bottom of said trash bag is impregnated with an antibacterial agent and a leaching enzyme.**

**4. The system according to claim 1, wherein:**

**said compacting chamber has an upper drain and a lower drain, and**

said valve means is for selectively coupling the upper drain to said bilge drain valve.

5. The system according to claim 4, wherein:

said valve means is for selectively coupling the lower port to the grey water system of an aircraft.

6. The system according to claim 5, wherein:

said valve means is a three position valve having a first position coupling said upper port to cabin pressure and closing said lower port, a second position coupling said upper port to said bilge drain valve and closing said lower port, and a third position coupling said lower port to the grey water system of an aircraft and closing said upper port.

7. The system according to claim 1, wherein:

said bilge drain valve includes a spring biased plunger having a through bore which maintains fluid communication with atmospheric pressure at all times.

8. A trash bag for use in an aircraft trash management system; said trash bag comprising:

a non-porous flexible side wall, and

a porous bottom, such that when said trash bag is filled with trash and is compacted, any liquid contained in the trash drains through said porous bottom.

9. The trash bag according to claim 8, wherein:

said porous bottom of said trash bag is impregnated with one of a non-leaching antibacterial agent and a leaching enzyme.

10. The trash bag according to claim 8, wherein:

said porous bottom of said trash bag is impregnated with a non-leaching antibacterial agent and a leaching enzyme.

11. The trash bag according to claim 8, wherein:

said side wall is polyethylene, and

said bottom is perforated polyethylene.

12. The trash bag according to claim 8, wherein:

said bottom includes a sheet of non-woven polypropylene.

13. The trash bag according to claim 8, wherein:

said bottom is perforated polyethylene covered with a sheet of non-woven polypropylene.

**14. The trash bag according to claim 13, wherein**

**said polypropylene is impregnated with one of a non-leaching antibacterial agent and a leaching enzyme.**

**15. The trash bag according to claim 13, wherein:**

**said polypropylene is impregnated with a non-leaching antibacterial agent and a leaching enzyme.**

**16. The trash bag according to claim 8, wherein:**

**said side wall defines a first end and a second end, said first end being coupled to said bottom and said second end being provided with closure means.**

**17. The trash bag according to claim 16, wherein:**

**said closure means includes a drawstring.**

**18. The trash bag according to claim 16, wherein:**

**said closure means includes a ZIPLOCK closure.**

**19. The trash bag according to claim 16, wherein:**

**said closure means includes a pair of tails adapted to be tied together.**

20. A trash compactor for compacting trash aboard an aircraft, said trash compactor comprising:

- a) a compacting chamber;
- b) a chamber in communication with cabin pressure;
- c) a crusher plate between said compacting chamber and said chamber in communication with cabin pressure;
- d) an upper port for coupling said compacting chamber to atmospheric pressure; and
- e) a lower port for draining liquid from said compacting chamber.

21. The trash compactor according to claim 20, further comprising:

- f) valve means for selectively coupling said upper port to one of atmospheric pressure and cabin pressure.

22. The trash compactor according to claim 21, wherein:

said valve means is also for selectively coupling said lower port to a fluid outlet.

23. The trash compactor according to claim 22, wherein:

said fluid outlet is the grey water system of the aircraft.

24. The trash compactor according to claim 20, further comprising

f) a door for accessing said compacting chamber; and

g) a sealing gasket between said door and said compacting chamber,

such that the trash compactor will not operate if the seal provided by the sealing gasket is broken.

25. A bilge drain valve for use in an aircraft, said bilge drain comprising:

a) a flange for mounting the valve to the fuselage of an aircraft;

b) a spring biased plunger having a throughbore; and

c) a fluid connector in fluid communication with said throughbore, whereby said fluid connector is always in fluid communication with atmospheric pressure via the throughbore in said plunger.

26. The bilge drain valve according to claim 25, further comprising:

d) a cabin side annular flange, said annular flange providing fluid communication between the cabin and the atmosphere when said spring biased plunger is in a biased open position, fluid communication between the cabin and the atmosphere being blocked by said plunger when said plunger is moved against said spring.

27. An aircraft trash management system for use with the existing drain mast in an aircraft, comprising:

- a) a trash bag having a porous bottom;
- b) a compactor having a compacting chamber having at least one drain port, a chamber in communication with cabin pressure and a bellows driven crusher plate between the two chambers; and
- c) valve means for selectively coupling the compacting chamber port to the drain mast such that the compacting chamber is in fluid communication with atmospheric pressure.

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